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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/405,094	09/27/1999	PETER MARTIN KENNETH COTTREAU	9-13528-57US	9114

7590

07/28/2004

SWABEY OGILVY RENAULT
1981 MCGILL COLLEGE AVENUE SUITE 1600
MONTREAL, H3A2Y3
CANADA

EXAMINER

MEHRA, INDER P

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/405,094

Applicant(s)

COTTREAU ET AL.

Examiner

Inder P Mehra

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2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 1999.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2&3.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This is in response to application dated: 9/27/99

Drawings

2. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81. No new matter may be introduced in the required drawing.

Refer to page 9. Fig. 11 is not supported by drawings. Please provide drawing fig.

11.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claims 2-27 recite the limitation "a method" in line 1. There is insufficient antecedent basis for this limitation in the claim. "Method" is preceded by "A method" in claim 1.

- b. Claims 29-40 recite the limitation "a system" in line 1. There is insufficient antecedent basis for this limitation in the claim. "System" is preceded by A system in claim 1.

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- c. Claims 42-55 recite the limitation " a method " in line 1. There is insufficient antecedent basis for this limitation in the claim. "Method" is preceded by "A method" in claim 1.
- d. Claim 2 recites the following limitations:
 - "the state of links" in 10. There is insufficient antecedent basis for this limitation in the claim.
 - "the forwarding process" in line 15. There is insufficient antecedent basis for this limitation in the claim.
 - "an active topology; Change "a" to "the" in order to satisfy antecedent basis.
 - "the tandem" in line 25. There is insufficient antecedent basis for this limitation in the claim.
- e. Claim 6 recites the following limitation:
 - "the PDUs" in line 1. There is insufficient antecedent basis for this limitation in the claim.
 - "communicated the recovery", in line 10, it seems that "communicated" should be "communicate". Appropriate correction is required.
 - "TD" in line 12 should be "TDM."

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 28 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lee et al** (US Patent No. 5,663,950), hereinafter, Lee, and further in view of **Hayward et al** (US Patent No. 6,222,848), hereinafter, Hayward.

For claims 1, 28 and 41, Lee discloses, “a system for discovering and monitoring an active topology of a dual counter rotating ring (DCRR) at a data link layer (MAC layer which is part of Data Link Layer, refer to col. 8 lines 35-36), refer to fig. 1), refer to col. 1 lines 17-18, (“topology is known” refer to col. 1 lines 48-50), and (col. 7 line 30-40 active path); -----frame forwarding from a medium to the DCRR(receiving signals from data terminals which are part of LAN attached to the DCRR, refer to col. 5 lines 40-45), (input ports with functional devices attached, col. 3 lines 34-38, col. 11 lines 5-10); and to provide rapid failover in a network component failure event, refer to abstract, col. 1 lines 33-40, figs. 2A-2D, col. 3 lines 22-24, col. 3 lines 50-53; each access point in the DCRR comprising:

- a topology maintenance protocol (the method ----waiting---reevaluating the primary ring and secondary ring connection, refer to col. 4 lines 19) entity for monitoring individual links of the DCRR (monitoring primary ring to determine if failure continues to occur, refer to col. 4 lines 24-26, col. 9 lines 64-66), discovering the active topology (wraps the primary ring and the secondary ring of reconfiguration unit 10 by connecting the PR to SR -----, refer to col. 10 lines 24-33); communicating topology changes to other access points in the DCRR (notifies MAC 25 of the failure, refer to col. 9 lines 8-9),

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and informing frame forwarding and learning processes of the topology to enable failover to a redundant path (generates failure frame-----contains address of MAC 25----determines that failure frame is received from the primary ring 5, refer to col. 9 lines 9-25);

- a frame forwarding process for selecting a shortest path route between a source and destination access point in the DCRR (generates failure frame-----contains address of MAC 25----determines that failure frame is received from the primary ring 5, refer to col. 9 lines 9-25, notifies MAC 25 of the failure, refer to col. 9 lines 8-9);
- an address learning process for inspecting a source medium access control (MAC) address in each received frame to learn a shortest path route for each MAC address (failure frame contains address of MAC which detected the failure and generated the frame, col. 3 lines 35-42, the MAC also determines if a failure frame is received from PR-----, refer to col. 3 lines 43-54).

Lee does not disclose expressly, “selecting a shortest path route between a source and destination access point in the DCRR; and “inspect a source medium access control (MAC) address in each received frame to learn a shortest path route for each MAC address”

Hayward discloses, ““selecting a shortest path route between a source and destination access point in the DCRR (find the shortest path to the destination MAC address for the packet from that transport node”, refer to col. 8 line 67 –col. 9 line 3; and “inspect a source medium access control (MAC) address in each received frame to learn a shortest path route for each MAC address”, refer to col. 9 lines 5-16 and col. 10 line 15.

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It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the capability of selecting shortest path on inspecting MAC address. The capability can be implemented by combining the system as taught by Hayward at the node of the rings. The suggestion/motivation to do so would have been to receive and transmit data along the shortest path between source and destination.

7. Claims 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Lee et al** (US Patent No. 5,663,950), hereinafter, Lee, in view of **Hayward et al** (US Patent No. 6,222,848), hereinafter, Hayward, as in claim 41 above, and further in view of **Galaway et al** (US Patent No. 6,650,646), hereinafter, Lee.

For claim 44, Lee and Hayward disclose all the limitations and subject matter of claim 44, with the exception of the following limitation, which is disclosed by Galaway, refer to col. 5 line66 through col. 6 line 10:

“discovering a topology of network is triggered in response to detection of changes in the topology of the communication network”,

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the capability of discovering topology as a result of change in topology. The capability can be implemented by combining the system as taught by Galaway at the node of the rings. The suggestion/motivation to do so would have been to receive and transmit data along the shortest path between source and destination.

8. Claims 49-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lee et al** (US Patent No. 5,663,950), hereinafter, Lee, in view of **Hayward et al** (US Patent

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No. 6,222,848), hereinafter, Hayward, as in claim 41 above, and further in view of **Macera et al** (US Patent No. 5,490,252), hereinafter, Lee.

For claim 49, Lee disclose all the limitations and subject matter of claim 49, with the exception of the following limitation, which is disclosed by Macera, refer to col. 20 lines 48-58:

“learning addresses comprises-----; extracting a source address of a payload data frame received at a WAN port of the access point; and maintaining an address cache including data of the source address” ”,

It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the capability of learning address and maintaining an address cache. The capability can be implemented by combining the system as taught by Macera at the node of the rings. The suggestion/motivation to do so would have been to receive and transmit data along the shortest path between source and destination.

Allowable Subject Matter

9. Claims 2-27, 29-45, 45-48 and 51-55 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 2-27, 29-45, 45-48 and 51-55 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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Prior Art

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Fawaz et al (US Patent No. 6,714,517) discloses a packet-switched communication network which provides a guaranteed minimum bandwidth between pairs of packet Switches by defining Service Level Agreement.

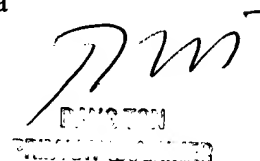
Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Inder P Mehra whose telephone number is 703-305-1985. The examiner can normally be reached on 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 703-308-5463. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Inder Mehra
Inder P Mehra
Examiner


EXAMINER
INDER P MEHRA